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 TI
      Preparation of novel heterocycle-substituted benzene derivatives and
      herbicides
      Adachi, Hiroyuki; Yamaguchi, Masao; Miyahara, Osamu; Tanaka, Katsunori;
 IN
      Kawana, Takashi; Takahashi, Akihiro; Koguchi, Masami; Yamagishi, Hideki
PA
      Nippon Soda Co., Ltd., Japan
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              LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO,
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CLASS
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$$R^{6}XO$$
 R^{5}
 R^{5}
 R^{4}
 R^{1}
 R^{2}
 R^{2}
 R^{2}

AB Benzoylpyrazole derivs. represented by general formula [I; R1, R2, R3 = halo, C1-6 alkyl, C1-6 alkoxy, NO2, cyano, C1-6 haloalkyl, haloalkoxy, or alkylthio, alkylsulfinyl, or alkylsulfonyl; n = 0, 1, 2; Het = an optionally substituted saturated or unsatd. 5-membered heterocyclic group which is bonded to the benzene ring at a carbon atom and which contains one to four hetero-atoms selected from among N, O and S and is substituted with R7 and R8; R4 = hydrogen, C1-6 alkyl, haloalkyl, or hydroxyalkyl, C1-6 alkoxy-C1-6 alkyl; R5 = C1-6 alkyl, C3-8 cycloalkyl, (un) substituted Ph; $X = \underline{SO2}$, (CH2) mCO, optionally alkyl-substituted C1-6 alkylene, a single bond; wherein m = 0, 1-3; R6 = optionally substituted phenyll are prepared The above compds. exhibit an excellent herbicidal activity with good selectivity for weeds at a low dosage. Thus, 4-[2,4-dichloro-3-(3methyl-1,2-isoxazol-5-yl)benzoyl]-1,3-dimethyl-5-hydroxypyrazole was dissolved in CH2Cl2, followed by adding an aqueous K2CO3, p-toluenesulfonyl chloride, and benzyltrimethylammonium chloride in this order, and the resulting mixture was stirred at room temperature overnight to give I (R1 = R2

Cl, R3 = H, R4 = R5 = Me, R6X = p-toluenesulfonyl, Het = Q). I (R1 = F, R2 = SO2Me, R3 = R4 = H, R5 = Me, R6X = p-toluenesulfonyl, Het = Q) at 250 g/ha postemergence controlled 100% Abutilon theophrasti, Echinochloa crus-galli, Xanthium pensylvanicum, and Setaria faberii and gave no damage to corn seedlings.

ST isoxazolylbenzoylpyrazole prepn herbicide; benzoylpyrazole isoxazolyl prepn herbicide

IT Herbicides

(preparation of novel heterocycle-substituted benzene derivs. as herbicides)